

### REMARKS

The claims are 1-3 and 22-23, with claim 23 being the sole independent claim. Claim 23 has been amended to clarify the superconductor is solid. Also, claim 23 has been amended to specify that the compact oxide superconductor has the solidified metallic material on its outer surface. Support for this amendment may be found, inter alia, in the specification at page 10, lines 20-25 and page 11, line 24 through page 12, line 5. No new matter has been added. Reconsideration of the present claims is respectfully requested.

Claims 2-3 and 22-23 stand rejected under 35 U.S.C. § 103(a) as being allegedly obvious from U.S. Patent No. 5,545,613 (Yurek). Claim 1 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Yurek in view of U.S. Patent No. 5,512,538 (Den). The grounds of these rejections are respectfully traversed, particularly in light of the above amendments to claim 23.

Prior to addressing the merits of the rejections, Applicant would like to discuss briefly some of the key features and advantages of the present invention. The present invention is directed to a solid superconducting wire that has a fine line of a sintered, compact oxide superconductor, with solidified metallic material particles filling the voids in the oxide superconductor. The solidified metallic material is also present on the outer surface of the compact oxide superconductor. This results in good adhesion to the conductive material that surrounds the outer surface of the superconductor and prevents the conductive material from peeling off the superconductor even when the superconducting wire is subjected to heat cycles (Specification, page 10, lines 21-25).

Furthermore, the oxide superconductor can be attached without any gaps even when its surface is not smooth (specification, page 12, lines 2-5).

Yurek is directed to a tube consisting of metal or a metal alloy having a coating of a superconducting oxide on the inside and/or outside surface of the tube. As stated in Applicant's response filed on July 20, 2000, any of these embodiments would result in a hollow wire, not a solid one, as is disclosed in the presently claimed invention. Furthermore, Yurek does not teach or suggest a compact oxide superconductor that has a solidified metallic material on its outer surface. Clearly, since Yurek fails to recognize several key features of the present invention, it cannot render the present invention unpatentable. Thus, withdrawal of the rejection over Yurek is respectfully requested.

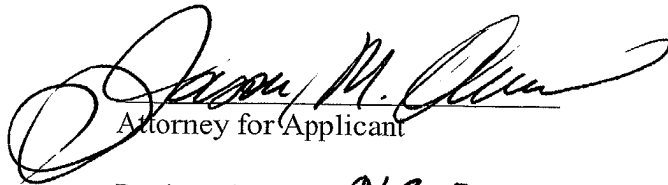
Den cannot supplement the missing teachings of Yurek. For example, it does not teach or suggest the compact oxide superconductor that has the solidified metallic material on its outer surface. As discussed above, this feature provides the present invention with several important advantages. Thus, Den, whether considered alone or in combination with Yurek, cannot render the present invention unpatentable. Accordingly, the rejection over Yurek and Den should be withdrawn.

This Amendment After Final Rejection should be entered because it places the case in allowable form. Alternatively, it places the case in better form for appeal.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and passage to issue of the subject application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

  
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APPENDIX

Application No. 08/528,538  
Attorney Docket No. 35.G1548

IN THE CLAIMS:

Claim 23 has been amended as follows:

23. (Three Times Amended) A superconducting wire comprising:

a fine line of a sintered, compact oxide superconductor having dispersed therein particles of a solidified metallic material filling voids in said oxide superconductor to make the superconducting wire solid;

said fine line of oxide superconductor having an outer coating of a conductive material comprising a metal having a melting point higher than that of the solidified metallic material,

wherein the compact oxide superconductor has the solidified metallic material on its outer surface.